

IN THE CLAIMS

Kindly amend Claims 63-90, and add new Claims 91-144 as follows.

1-62 (canceled).

63 (currently amended). Spinal plate structure, ~~A device adapted and configured to stabilize adjacent vertebrae of a spine, the device comprising:~~

- (a) a generally rigid spinal plate having a bottom side generally adapted to face a plurality of vertebrae and a top side generally facing opposite the bottom side;
- (b) a plurality of bores defined by said spinal ~~the~~ plate and passing through said spinal ~~the~~ plate from the top side of said spinal plate to the bottom side of said spinal ~~the~~ plate;
- (c) at least two bone anchors, each having a shank and a head, said the head of each said bone anchor having a top surface, said at least the two bone anchors being insertable into respective ones of the bores thereby to secure said spinal ~~for securing the plate to~~ such the vertebrae; and
- (d) a retainer band adapted and configured to prevent bone ~~for preventing anchor back-out,~~ said the retainer band being positioned within at least one of the bores and being confined between the top side and the bottom side of said spinal ~~the~~ plate, said the retainer band having
  - (i) an initial position where at least a first portion of the length of said retainer band extends across a first portion of ~~partially intersects~~ the

- respective bore,
- (ii) a passage position wherein the head of a said bone ~~the anchor~~ which is being inserted into the respective bore has deflected said retainer band transversely relative to the respective bore up to a sufficient distance to accommodate passage of said head of the respective said bone anchor past said retainer band ~~passed the retainer~~ as said bone ~~the anchor is being driven to secure said the plate to a the~~ the anchor is being driven to secure said the plate to a ~~the~~ respective such vertebra, and
  - (iii) a retention position where such ~~the~~ at least a first portion of the length of said retainer band again generally extends across such first portion of ~~partially intersects~~ the respective bore and thereby is located proximal, and over, the respective bone anchor to the top surface of the head,

wherein said the retainer band has a closed end portion which is stabilized relative with respect to the top side and the bottom side of said spinal plate and has generally straight portions extending from the closed end portion and across at least a portion of the respective said bore.

64 (currently amended). Spinal plate structure as in ~~The device of~~ claim 63 wherein said spinal the plate has a generally arcuate shape.

65 (currently amended). Spinal plate structure as in ~~The device of~~ claim 63 wherein the bores include first and second a pair of bores for attaching said spinal plate structure to a first such vertebra.

66 (currently amended). Spinal plate structure as in ~~The device of~~ claim 63 wherein said spinal plate structure is sized and adapted to span the device spans at least two vertebrae, and at least one bore is provided for each such vertebra of the vertebrae.

67 (currently amended). Spinal plate structure as in ~~The device of~~ claim 66 wherein first such bores, in combination with first respective said bone anchors, prevent movement of said spinal ~~the~~ plate relative to a first such vertebra, and wherein second such bores, in combination with second respective said bone anchors, accommodate ~~permit~~ movement of said spinal ~~the~~ plate relative to a second such vertebra.

68 (currently amended). Spinal plate structure as in ~~The device of~~ claim 67 wherein third such bores, in combination with third respective said bone anchors, accommodate ~~permit~~ movement of said spinal ~~the~~ plate relative to a third such vertebra.

69 (currently amended). Spinal plate structure as in ~~The device of~~ claim 66 wherein at least one such bore accommodates a said bone ~~permits an~~ anchor secured therein, and secured to a such vertebra, translating to translate relative to the plate within such the bore.

70 (currently amended). Spinal plate structure as in ~~The device of~~ claim 63 ~~69~~ wherein at least one such bore prevents a said ~~an~~ anchor secured therein, and secured to a such vertebra, from translating relative to the plate within such the bore and/or relative to said spinal plate.

71 (currently amended). Spinal plate structure as in ~~The device of~~ claim 70 wherein such bores which prevent ~~preventing~~ anchor translation are generally circular.

72 (currently amended). Spinal plate structure as in ~~The device of~~ claim 69 wherein such bores which accommodate permitting anchors translating to translate are elongated bores.

73 (currently amended). Spinal plate structure as in ~~The device of~~ claim 63 wherein each such bores include bore includes an interior surfaces surface and the interior surfaces surface at least in part define recesses which receive portions defines a recess ~~for receiving at least a portion of the~~ length of the respective said retainer band.

74 (currently amended). Spinal plate structure as in ~~The device of~~ claim 73 wherein the recess in a given such bore ~~recesses generally defines~~ define a channel.

75 (currently amended). Spinal plate structure as in ~~The device of~~ claim 73 wherein the first and second ends of said the retainer band are received in respective the recesses in said spinal plate.

76 (currently amended). Spinal plate structure as in ~~The device of~~ claim 63 wherein, when said bone the anchors are in place, mounting said spinal the plate to bone structure of a recipient user thereof, said the retainer band, as associated with for each said bone anchor, is positioned so as to be above the top surface of the respective said bone anchor.

77 (currently amended). Spinal plate structure as in ~~The device of~~ claim 76 wherein said spinal the plate includes a shoulder, extending into the bore proximate the bottom side surface of said spinal the plate, in part and defining in part the respective said bore for receiving said the shank of the respective said bone anchor, said the shoulder having an arcuate profile, said the head of the respective said bone anchor having a generally bottom

surface having with an arcuate profile, said ~~the~~ shank of the respective said bone anchor being smaller in cross-section than the respective said bore, said aperture, the head of said bone anchor being larger than the respective portion of the bore at the shoulder of the bore, and the arcuate profile of the shoulder being complementary to the arcuate profile are of the bottom surface of the head.

78 (currently amended). Spinal plate structure as in ~~The device of~~ claim 63 wherein said the head of a respective said bone the anchor has a generally arcuate bottom surface, and the bottom surface interacts with a ~~cams against~~ generally straight portion portions of said the retainer band so as to function as a cam, thereby to move open the retainer band from the initial position to the passage position and thus to enable said ~~so as to permit the~~ head to move, in the respective bore, sufficiently past said retainer band to enable said retainer band to move back toward the initial position and into the retention position, thus blocking withdrawal of said head of said bone anchor ~~pass therethrough~~.

79 (currently amended). Spinal plate structure as in ~~The device of~~ claim 78 wherein said the retainer band moves position shifts to the retention position after said the head of said bone anchor moves is driven past said the retainer band, a ~~such that the~~ top surface of said bone the anchor being configured so as to be is unable to cam ~~open the~~ respective portion generally straight portions of the length of said retainer band back to the passage position whereby said retainer band prevents ~~so as to prevent~~ anchor back-out.

80 (currently amended). Spinal plate structure as in ~~The device of~~ claim 63 wherein said the retainer band has a generally upwardly facing surface portion, ~~a generally downwardly facing surface portion, and~~ a generally inwardly facing surface portion, and a joiner locus of said generally upwardly facing surface portion and said generally inwardly facing surface portion, and said the anchor head of said bone anchor contacts at least one

of the generally upwardly facing surface portion, the generally inwardly facing surface portion, and the joiner locus, of said retainer band portions thereby to move said ~~shift the~~ retainer band between the initial position and the passage retention position.

81 (currently amended). Spinal plate structure as in ~~The device of~~ claim 80 wherein said the anchor head of said bone anchor cams against at least one of the generally upwardly facing surface portion, the generally inwardly facing surface portion, and the joiner locus, portions of said the retainer band thereby to move said ~~shift the~~ retainer band between the initial position and the passage retention position.

82 (currently amended). Spinal plate structure as in ~~The device of~~ claim 63 wherein said the retainer band follows a continuous path and participates in defining an opening along the bore through which a respective said bone the anchor passes as the respective said bone anchor secures said spinal the plate to such the vertebra.

83 (currently amended). Spinal plate structure as in ~~The device of~~ claim 63, said retainer band at least in part defining a retainer, and wherein ~~the~~ generally straight portions of said the retainer extend ~~extending~~ between the first and second ends thereof, and are generally parallel to each other in the initial position.

84 (currently amended). Spinal plate structure, A device for stabilization of adjacent vertebrae of a spine, the device comprising:

- (a) a spinal plate having first and second ends, a bottom side generally adapted to face a plurality of vertebrae, and a top side generally facing opposite the bottom side;
- (b) a plurality of bores defined by said spinal the plate and passing through said

spinal the plate from the top side of said spinal plate to the bottom side of said spinal the plate;

- (c) bone anchors, each having a shank and a head, said heads of said bone anchors the head having top surfaces a top surface, the said bone anchors being insertable into respective ones of the bores thereby to secure said spinal the plate to such the vertebrae; and
- (d) a retainer band defining first and second end portions generally directed toward the first and second ends of said spinal plate, said retainer band being adapted and configured to prevent bone anchor back-out, and the retainer being positioned within at least one of the bores,

a bore portion of the length of said retainer band extending, at an initial position, into and across a respective bore, at least a portion of the bore portion of said retainer band deviating from parallelism with an inwardly-facing side of the respective bore, the retainer having first and second end portions stabilized with respect to the plate,

at least one portion of said retainer band, between the first and second end portions of said retainer band, being resiliently deflectable in a direction transversely away from the respective bore, from an initial position to a passage position, thereby to enable a to permit the head of a said bone an anchor to move into the bore and past said the retainer band, and

said the retainer band being biased thereby to return toward to the initial position after said the head of said bone anchor has moved past said bore portion of said passed the retainer band, whereby said retainer band extends thereby to extend across a portion of the respective bore and blocks prevent back-out of said bone the anchor.

85 (currently amended). A spinal plate assembly, ~~adapted and configured to stabilize adjacent vertebrae of a spine, said spinal plate assembly comprising:~~

- (a) a spinal plate, said spinal plate comprising a top surface, a bottom surface opposite the top surface, the bottom surface being adapted and configured to be positioned adjacent a plurality of vertebrae of a recipient user, and a plurality of bone-fastener-receiving apertures which pass through said spinal plate from the top surface to the bottom surface, as to each such bone-fastener-receiving aperture, said spinal plate defining a projected outer perimeter extending about an aperture body; and
- (b) a channel defined in and extending downwardly from the top surface of said spinal plate;
- (c) a retainer band assembled in said channel, said retainer band having a length, a width, and a height, spinal plate assembly with said spinal plate, a first portion of the length of said retainer band extending
  - (i) at a first locus, across the projected outer perimeter and into the body, of at least one of the bone-fastener-receiving apertures,
  - (ii) from the first locus, across a portion of the aperture body, and
  - (iii) at a second locus, displaced from the first locus, back across the projected outer perimeter and off the body of the respective bone-fastener-receiving aperture, ~~and wherein the portion of said retainer which extends across the portion of the aperture body has a straight section~~

and from the second locus, an entirety of the width of a second portion of the length of said retainer band extends into a channel in said spinal plate such that material of said spinal plate is disposed



between the top surface of said spinal plate and the entirety of the width of the second portion of the length of said retainer band.

86 (currently amended). A spinal plate assembly as in Claim 85 wherein said retainer band is under constant compressive forces when so assembled to said spinal plate.

87 (currently amended). A spinal plate assembly as in Claim 85 wherein a the straight section of said retainer band extends generally uninterrupted from the first locus to the second locus.

88 (currently amended). A spinal plate assembly as in Claim 85 wherein said retainer band so extends across a first such bone-fastener-receiving aperture, and also extends across a second such bone-fastener-receiving aperture.

89 (currently amended). A spinal plate assembly as in Claim 86 wherein said retainer band so extends across a first such bone-fastener-receiving aperture, and also extends across a second such bone-fastener-receiving aperture.

90 (currently amended). A spinal plate assembly as in Claim 87 wherein said retainer band so extends across a first such bone-fastener-receiving aperture, and also extends across a second such bone-fastener-receiving aperture.

91 (new). Spinal plate structure as in Claim 84 wherein said spinal plate has a generally arcuate shape.

92 (new). Spinal plate structure as in claim 85 wherein first such bores, in combination with first respective said bone anchors, prevent movement of said spinal plate relative to a first such vertebra, and wherein second such bores, in combination with second respective said bone anchors, accommodate movement of said spinal plate relative to a second such vertebra.

93(new). Spinal plate structure as in claim 92 wherein third such bores, in combination with third respective said bone anchors, accommodate movement of said spinal plate relative to a third such vertebra.

94(new). Spinal plate structure as in claim 85 wherein at least one such bore accommodates a said bone anchor secured therein, and secured to a such vertebra, translating within such bore.

95 (new). Spinal plate structure as in claim 85 wherein such bores include interior surfaces and the interior surfaces at least in part define recesses which receive portions of the length of the respective said retainer band.

96 (new). Spinal plate structure as in claim 85 wherein first and second ends of said retainer band are received in respective recesses in said spinal plate.

97 (new). Spinal plate structure as in claim 85 wherein, when said bone anchors are in place, mounting said spinal plate to bone structure of a recipient user thereof, said retainer band, as associated with each said bone anchor, is positioned so as to be above

the top surface of the respective said bone anchor.

98 (new). Spinal plate structure as in claim 85 wherein said head of a respective said bone anchor has a generally arcuate bottom surface, and the bottom surface interacts with a generally straight portion of said retainer band so as to function as a cam, thereby to move the retainer band from the initial position to the passage position and thus to enable said head to move, in the respective bore, sufficiently past said retainer band to enable said retainer band to move back toward the initial position and into the retention position, thus blocking withdrawal of said head of said bone anchor.

99 (new). Spinal plate structure as in claim 98 wherein said retainer band moves to the retention position after said head of said bone anchor moves past said retainer band, a top surface of said bone anchor being configured so as to be unable to cam the respective portion of the length of said retainer band back to the passage position whereby said retainer band prevents anchor back-out.

100 (new). Spinal plate structure as in claim 85 wherein said retainer band follows a continuous path and participates in defining an opening along the bore through which a respective said bone anchor passes as the respective said bone anchor secures said spinal plate to such vertebra.

101 (new). Spinal plate structure as in claim 85, said retainer band at least in part defining a retainer, and wherein generally straight portions of said retainer band extend between first and second ends thereof, and are generally parallel to each other in the initial position.

102 (new). Spinal plate structure as in Claim 84 wherein said spinal plate structure is sized and adapted to span at least first and second vertebrae, and at least one such bore is provided for each such vertebra, wherein a first such bore, in combination with a first said bone anchor, prevents movement of said spinal plate relative to such first vertebra, and wherein a second such bore, in combination with a second said bone anchor, accommodates movement of said spinal plate relative to such second vertebra.

103 (new). Spinal plate structure as in Claim 102 wherein at least one such bore accommodates a said bone anchor secured therein, and secured to a such vertebra, translating within such bore.

104 (new). Spinal plate structure as in Claim 84 wherein at least one such bore prevents a said bone anchor secured therein, and secured to a such vertebra, from translating within such bore and/or relative to said spinal plate.

105 (new). Spinal plate structure as in Claim 104 wherein such bores which prevent anchor translation are generally circular.

106 (new). Spinal plate structure as in Claim 104 wherein such bores which accommodate anchors translating are elongate bores.

107 (new). Spinal plate structure as in Claim 84 wherein all of such bores are circular bores.

108 (new). Spinal plate structure as in Claim 84 wherein such bores include interior surfaces and the interior surfaces at least in part define recesses which receive at least a portion of the length of the respective said retainer band.

109 (new). Spinal plate structure as in Claim 108 wherein the recess in a given such bore generally defines a channel.

110 (new). Spinal plate structure as in Claim 84 wherein, when said bone anchors are in place, mounting said spinal plate to bone structure of a recipient user thereof, said retainer band, as associated with each said bone anchor, is positioned so as to be above the top surface of the respective said bone anchor.

111 (new). Spinal plate structure as in claim 84 wherein said head of a respective said bone anchor has a generally arcuate bottom surface, and the bottom surface interacts with a generally straight portion of said retainer band so as to function as a cam, thereby to move the retainer band from the initial position to the passage position and thus to enable said head to move, in the respective bore, sufficiently past said retainer band to enable said retainer band to move back toward the initial position and into the retention position, thus blocking withdrawal of said head of said bone anchor.

112 (new). Spinal plate structure as in claim 111 wherein said retainer band moves to the retention position after said head of said bone anchor moves past said retainer band, a top surface of said bone anchor being configured so as to be unable to cam the respective portion of the length of said retainer band back to the passage position, whereby said retainer band prevents anchor back-out.

113 (new). Spinal plate structure as in claim 84 wherein said retainer band has a generally upwardly-facing surface portion, a generally inwardly-facing surface portion, and a joiner locus of said generally upwardly facing surface portion and said generally inwardly facing surface portion, and wherein said head of said bone anchor cams against at least one of the generally upwardly facing surface portion, the generally inwardly facing surface portion, and the joiner locus, of said retainer band thereby to move said retainer band between the initial position and the passage position.

114 (new). Spinal plate structure as in claim 63 wherein said retainer band is resiliently deflected into the passage position, and resiliently moves toward the retention position.

115 (new). Spinal plate structure as in claim 85 wherein said retainer band is resiliently deflected into the passage position, and resiliently moves toward the retention position.

116(new). Spinal plate structure as in claim 84 wherein all of the bores are circular.

117 (new). Spinal plate structure as in claim 63 wherein all of the bores are circular.

118 (new). Spinal plate structure as in claim 85 wherein all of the bore-fastener-receiving apertures are circular.

119 (new). Spinal plate structure, comprising:

- (a) a spinal plate, said spinal plate comprising a top surface, a bottom surface opposite the top surface, the bottom surface being adapted and configured to be positioned adjacent vertebrae of a recipient user, and a plurality of bone-fastener-receiving apertures which pass through said spinal plate from the top surface to the bottom surface;

as to each such bone-fastener-receiving aperture, said spinal plate defining a projected outer perimeter extending about an aperture body;

- (b) at least first and second bone fasteners, each having a head, said head of each said bone fastener having a top surface, said at least first and second bone anchors being insertable into respective ones of the bone-fastener-receiving aperture thereby to secure said spinal plate to such vertebrae; and
- (c) a retainer band having a length, and being adapted and configured to prevent bone anchor back-out, said retainer band extending across at least one of the bone-fastener-receiving aperture, said retainer band having
  - (i) an initial position where at least a first generally straight-line portion of an inwardly-directed edge of said retainer band extends across a first portion of the respective bone-fastener-receiving aperture in a straight-line direction which is generally in common with a portion of the top surface of said plate,
  - (ii) a passage position where the head of said bone anchor which is being inserted into the respective bone-fastener-receiving aperture has deflected said retainer band transversely relative to the respective bore up to a sufficient distance to accommodate passage of said head of the respective said bone anchor past said retainer band as said bone anchor is being driven to secure said plate to a respective such vertebra, and

- (iii) a retention position where such at least a first portion of the length of said retainer band again generally extends across such first portion of the respective bone-fastener-receiving aperture and thereby is located proximal, and over, a top surface of the head of the respective bone anchor.

120 (new). Spinal plate structure as in Claim 119 wherein first such bone-fastener-receiving apertures, in combination with first said bone fasteners, prevent movement of said spinal plate relative to a first such vertebra, and wherein second such bone-fastener-receiving apertures, in combination with second such bone fasteners, accommodate movement of said spinal plate relative to a second such vertebra.

121 (new). Spinal plate structure as in Claim 120 wherein third such bone-fastener-receiving apertures, in combination with third bone fasteners, accommodate movement of said spinal plate relative to a third such vertebra.

122 (new). Spinal plate structure as in Claim 119 wherein at least one such bone-fastener-receiving apertures, in combination with a said bone fastener, accommodates said bone fastener secured therein, and secured to a such vertebra, translating within such bone-fastener-receiving aperture.

123 (new). Spinal plate structure as in Claim 119 wherein at least one such bone-fastener-receiving aperture, in combination with a said bone fastener, prevents said bone fastener secured therein, and secured to a such vertebra, from translating within such bone-fastener-receiving aperture and/or relative to said spinal plate.



124 (new). Spinal plate structure as in Claim 123 wherein such bone-fastener-receiving apertures which prevent bone fastener translation are generally circular.

125 (new). Spinal plate structure as in Claim 122 wherein such bone-fastener-receiving apertures which accommodate bone fastener translating are elongated bores.

126 (new). Spinal plate structure as in Claim 119 wherein such bone-fastener-receiving apertures include interior surfaces and the interior surfaces at least in part define recesses which receive portions of the length of the respective said retainer band.

127 (new). Spinal plate structure as in Claim 126 wherein the recess in a given such bone-fastener-receiving aperture generally defines a channel.

128 (new). Spinal plate structure as in Claim 119 wherein first and second ends of said retainer band are received in respective recesses in said spinal plate.

129 (new). Spinal plate structure as in Claim 119 wherein, when said bone fasteners are in place, mounting said spinal plate to bone structure of a recipient user thereof, said retainer band associated with each said bone anchor is positioned so as to be above the top surface of the respective said bone fastener.

130 (new). Spinal plate structure as in Claim 119 wherein said retainer band is resiliently deflected into the passage position, and resiliently moves toward the retention position.

131 (new). Spinal plate structure, comprising:

- (a) a spinal plate, said spinal plate comprising a top surface, a bottom surface opposite the top surface, the bottom surface being adapted and configured to be positioned adjacent vertebrae of a recipient user, and a plurality of bone-fastener-receiving apertures which extend through said spinal plate from the top surface to the bottom surface;
- (b) bone fasteners, each having a head; and
- (c) a retainer band adapted and configured to prevent bone anchor back-out, said retainer band being positioned within at least one of the bores, said retainer band having first and second ends facing away from each other, and having
  - (i) an initial position where at least a first portion of said retainer band extends across a first portion of a respective bone-fastener-receiving aperture,
  - (ii) a passage position wherein the head of a said bone fastener which is being inserted into the respective bone-fastener-receiving aperture has deflected said retainer band transversely relative to the respective bone-fastener-receiving aperture up to a sufficient distance to accommodate passage of said head of the respective said bone fastener past said retainer band as said bone fastener is being driven to secure said plate to a respective such vertebra, and
  - (iii) a retention position where such at least a first portion of said retainer band again generally extends across such first portion of the respective bone-fastener-receiving aperture and thereby is located proximal, and over, the respective bone fastener.

132 (new). Spinal plate structure as in Claim 131 wherein first such bone-fastener-receiving apertures, in combination with first said bone fasteners, prevent movement of said spinal plate relative to a first such vertebra, and wherein second such bone-fastener-receiving apertures, in combination with second bone fasteners, accommodate movement of said spinal plate relative to a second such vertebra.

133 (new). Spinal plate structure as in Claim 132 wherein third such bone-fastener-receiving apertures, in combination with third said bone fasteners, accommodate movement of said spinal plate relative to a third such vertebra.

134 (new). Spinal plate structure as in Claim 131 wherein at least one such bone-fastener-receiving aperture, in combination with a said bone fastener, accommodates a said bone fastener secured therein, and secured to a such vertebra, translating within such bone-fastener-receiving aperture.

135 (new). Spinal plate structure as in Claim 131 wherein at least one such bone-fastener-receiving aperture, in combination with a said bone fastener, prevents said bone fastener secured therein, and secured to a such vertebra, from translating within such bone-fastener-receiving aperture and/or relative to said spinal plate.

136 (new). Spinal plate structure as in Claim 135 wherein such bone-fastener-receiving apertures preventing anchor translation are generally circular.

137 (new). Spinal plate structure as in Claim 136 wherein such bone-fastener-receiving apertures which accommodate anchors translating are elongated bores.

138 (new). Spinal plate structure as in Claim 131 wherein such bone-fastener-receiving apertures include interior surfaces and the interior surfaces at least in part define recesses which receive portions of the length of the respective said retainer band.

139 (new). Spinal plate structure as in Claim 138 wherein the recess in a given such bore generally defines a channel.

140 (new). Spinal plate structure as in Claim 131 wherein first and second ends of said retainer band are received in respective recesses in said spinal plate.

141 (new). Spinal plate structure as in Claim 131 wherein, when said bone fasteners are in place, mounting said spinal plate to bone structure of a recipient user thereof, said retainer band, as associated with each said bone anchor, is positioned so as to be above the top surface of the respective said bone fastener.

142 (new). Spinal plate structure as in Claim 131 wherein said retainer band is resiliently deflected into the passage position, and resiliently moves toward the retention position.

143 (new). Spinal plate structure as in Claim 131 wherein said retainer band has a closed end portion which is stabilized with respect to said spinal plate.

144 (new). Spinal plate structure as in Claim 63 wherein said retainer band has a closed end portion which is stabilized with respect to said spinal plate, and wherein generally straight-line portions of said retainer band extend across at least portions of respective ones of the bores.